

What is claimed is:

1. The present invention provides a color filter array having a blue filter layer on a substrate wherein the blue filter layer comprises

5 a triallylmethane dye showing its absorption maximum at a wavelength within the range of from 550 to 650 nm; and has a transmittance at a wavelength of 450 nm of 70% or more and that at 650 nm of 5% or less.

10 2. The color filter array having a blue filter layer on a substrate according to claim 1, wherein the blue filter layer further comprises a copper phthalocyanine dye having its absorption maximum at a wavelength of 600 to 700 nm.

15 3. The color filter array having a blue filter layer on a substrate according to claim 1, wherein the blue filter layer further comprises a xanthene dye having its absorption maximum at a wavelength of 500 to 600 nm, and has a transmittance of 15% or less at 535 nm.

20 4. The color filter array having a blue filter layer on a substrate according to claim 2, wherein the blue filter layer further comprises a xanthene dye having its absorption maximum at a wavelength of 500 to 600 nm, and has a transmittance of 15% or less at 535 nm.

25 5. A process for producing a color filter array having a blue filter layer on a substrate which comprises the step of patterning a photosensitive resin composition comprising a triallylmethane dye showing its absorption maximum at a wavelength within the range of from 550 to 650 nm; and

has a transmittance at a wavelength of 450 nm of 70% or more and that at 650 nm of 5% or less.

6. The process according to claim 5, wherein the

5 photosensitive resin composition further comprises a copper phthalocyanine dye having its absorption maximum at a wavelength of 600 to 700 nm.

7. The process according to claim 5, wherein the

10 photosensitive resin composition further comprises a xanthene dye having its absorption maximum at a wavelength of 500 to 600 nm, and the blue filter layer has a transmittance of 15% or less at 535 nm.

8. The process according to claim 6, wherein the

15 photosensitive resin composition further comprises a xanthene dye having its absorption maximum at a wavelength of 500 to 600 nm, and the blue filter layer has a transmittance of 15% or less at 535 nm.

9. A photosensitive resin composition comprising

a triallylmethane dye showing its absorption maximum at a wavelength within the range of from 550 to 650 nm.

20 10. A photosensitive resin composition according to claim 9, which further comprises a copper phthalocyanine dye having its absorption maximum at a wavelength of 600 to 700 nm.

11. The photosensitive resin composition according

25 to claim 10, wherein the amount of the triallylmethane dye is 30 to 70 parts by weight per a total of 100 parts by weight of the triallylmethane dye and the copper phthalocyanine dye.

12. The photosensitive resin composition according to claim 10 that further comprises a xanthene dye having its absorption maximum at a wavelength of 500 to 600 nm.

13. The photosensitive resin composition according to claim 12, wherein the amount of the triallylmethane dye is 30 to 70 parts by weight and the amount of the xanthene dye is 70 parts by weight or less per a total of 100 parts by weight of the copper phthalocyanine dye and the xanthene dye.

14. The photosensitive resin composition according to claim 9 which further comprises a photoactive compound, and an alkali-soluble resin, and wherein the amounts of the dyes, the photoactive compound, and the alkali-soluble resin are 10 to 50 parts by weight, 10 to 50 parts by weight, and 3 to 80 parts by weight, per a total of 100 parts by weight of the dyes, photoactive compound, and alkali-soluble resin, respectively.

15. The photosensitive resin composition according to claim 14 which further comprises a curing agent, and wherein the amount of the curing agent is not less than 10 parts by weight and not more than 35 parts by weight per a total of 100 parts by weight of the dyes, the photoactive compound, and the alkali-soluble resin.

16. The photosensitive resin composition according to claim 9 which further comprises photo acid generator, curing agent, and an alkali-soluble resin, and wherein the amounts of the dyes, the photo acid generator, the curing agent, and the alkali-soluble resin are about

15 to 40 parts by weight, 0.3 to 5 parts by weight, 10 to 25 parts by weight, and 20 to 75 parts by weight,

per a total of 100 parts by weight of the dyes, photoreactive acid generator, curing agent, and alkali-soluble resin,

5 respectively.

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T062904-2226950